

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant : Toshiyuki TAKABAYASHI  
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CURABLE COMPOSITION... |  
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DECLARATION UNDER 37 CFR 1.132

Toshiyuki TAKABAYASHI, declares that he is the Inventor of the invention described and claimed in the above-referenced application.

He received a Bachelor's Degree in Chemistry from Kyoto University in March 1992. Since April of that year, he has been employed by Konica Corporation, now named as Konica Minolta Medical & Graphic, Inc., the Assignee of the above-identified Application. He has been engaged in research and development in the field of photographic materials and other imaging materials.

During the prosecution of the present application the U.S. Patent Examiner cited UPS 6,368,769 to Ohkawa et al. as anticipating or rendering obvious the current claims in this application.

Ohkawa et al. discloses 6 Examples from col. 17 to 20. The maximum bond distance of Example Nos. 1, 3, 4 and 5 were calculated employing WinMOPAC, the same calculation software used to obtain the bond distance of the present claims. The results are shown in Table A shown below. In this software, the kind of a counter anion does not affect the values of the S-C bond distance. Therefore, Examples Nos. 2 and 6 were not listed in Table A.

The S-C bond distance: No. 1 = No. 2;

No. 5 = No. 6.

Table A

Example No. Of Ohkawa	Maximum S-C bond Distance (nm)
1	0.1684
3	0.1686
4	0.1686
5	0.1676

As are shown in Table A, all of the Examples of Ohkawa has a much shorter Maximum S-C bond distance than the vales of the amended claim 1: 0.1688 - 0.1750 nm. The longest value was 0.1686 nm for Examples Nos. 3 and 4.

The following ink sets were prepared in order to prove that an photo-acid generating agent having a shorter maximum S-C bond distance than that of the amended claim 1 cannot achieve the unexpected superior effects of the present invention.

Example Nos. 3 and 4 were used instead of the present inventive compound 7 of Ink composition set 2 (see Table 2 at page 50 of the present specification). Compound 7 has a maximum S-C bond distance of 0.1695 nm which is within the range of the present claim (page 54, the last line). The newly prepared ink sets produced in the same manner as producing Ink composition set 2 of the present invention were respectively named as Ink set OH-3 and Ink set OH-4.

Thus prepared Ink set OH-3 and Ink set OH-4 were each used in the same manner as producing the inventive Sample Nos. 5 - 8 described in Table 6 at pages 61. Then produced Samples Nos. OH-3a to OH-3d and OH-4a to OH-4d were subjected to the same evaluations as described in pages 63 to 64.

The prepared samples each used a recording materials and as listed in Table B1.

Table B1

Sample No.	Ink set	Recording material
OH-3a	OH-3	OPP
OH-3b	OH-3	PET
OH-3c	OH-3	Shrink OPS
OH-3d	OH-3	Shasu Coated paper
OH-4a	OH-4	OPP
OH-4b	OH-4	PET
OH-4c	OH-4	Shrink OPS
OH-4d	OH-4	Shasu Coated paper

The evaluation results are shown in Table B2.

Table B2

Sample No.	Ambience at 10 °C and 20% RH		Ambience at 25 °C and 50% RH		Ambience at 32 °C and 80% RH		Remarks
	Character Quality	Color Mixing	Character Quality	Color Mixing	Character Quality	Color Mixing	
OH-3a	B	B	B	B	D	C	Ohka-wa
OH-3b	B	B	B	C	C	D	Ohka-wa
OH-3c	B	B	C	C	D	C	Ohka-wa
OH-3d	B	B	C	C	D	D	Ohka-wa
OH-4a	B	B	B	B	D	C	Ohka-wa
OH-4b	B	B	B	C	C	D	Ohka-wa
OH-4c	B	B	C	C	D	C	Ohka-wa.
OH-4d	B	B	C	C	D	D	Ohka-wa

As shown above, newly prepared samples Nos. OH-3a to OH-3d and OH-4a to OH-4d each has a difficulty of hardening under high humidity (80 %RH). As a result, both Character Quality and Color Mixing are evaluated to be very poor. Table 7 at page 65 demonstrates that the inventive samples using a photo-acid generating agent of the present claim show high grade evaluation results having no "D" rank.

These results show that a photo-acid generating agent having a smaller S-C bond distance (0.1686 nm) of Ohkawa fails to achieve the effects of the present invention.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: June 8, 2005

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